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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Thomas Anschutz

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AT&T Legal Department - SZ

Attn: Patent Docketing

Room 2A-207

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EXAMINER

LAI, MICHAEL C

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/699,294	Applicant(s) ANSCHUTZ ET AL.	
	Examiner MICHAEL C. LAI	Art Unit 2457	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/18/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is responsive to communication filed on 12/18/2009.

Claims 1-33 have been examined.

Response to Amendment

2. The examiner has acknowledged the amended claims 1, 11, 16, 22, and 28.

Claims 1-33 are pending.

Response to Arguments

3. Applicant's arguments with respect to the 103(a) rejections have been considered but are moot in view of the new ground(s) of rejection.

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).

Correction of the following is required: Applicant fails to provide antecedent basis for the claim terminology "frequency of a destination line" in claims 16, 22, and 28. Note that paragraph [0011] describes as "frequency of data being transmitted along the transmission line."

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edson (US 6,526,581 B1, hereinafter Edson), and in view of Rudish et al. (US 4,839,894, hereinafter Rudish).

Regarding claim 1, Edson discloses a system providing network topology and bandwidth management comprising:

a processor executing a connection module and a management module stored in memory [FIG. 4, microprocessor 59 and memory 60];

the connection module accepting inputs and providing outputs to various types of voice and non-voice data networks [FIG.4 and col. 13, lines 24-63, RJ11 connectors and HPNA interface 63]; and

the management module cooperating with the connection module to accept data from said voice and non-voice data networks for routing [col. 3 line 46 through col. 5 line 6, the gateway].

Edson discloses the claimed invention except for the frequency demultiplexer to demultiplex a received multi-frequency signal into separate frequency components and determining an output port in a router based on a frequency of at least one component signal of the multi-frequency signal. However, Rudish discloses a multiplexer/demultiplexer for combining/separating a large number of contiguous frequency channels in microwave bands while incurring low insertion loss, and a Butler matrix to combine signal samples selectively at different output ports for different input signal frequencies [see abstract]. Rudish further

discloses providing a frequency channelizer for directing a signal applied at its input to one of its many output ports, the specific output port being determined by the frequency of the signal applied to the input [see col. 2, lines 62-66]. It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Rudish's teaching into Edson's system for the purpose of allowing multi-frequency signals traveling on the same connection by using a frequency demultiplexer to demultiplex a received multi-frequency signal into separate frequency components and selecting an output port in a router based on a frequency of the input signal, thereby enabling transmitting a number of separate frequency signals simultaneously over a single channel or line and reducing cost in a home network.

Regarding claim 2, Edson further discloses wherein the management module comprises a plurality of network adapters for use to connect to various voice and non-voice data networks [col. 3, lines 23-25].

Regarding claim 3, Edson further discloses a control circuit, the control circuit executing one or more instructions for use to determine an origination of the data and a destination of the data [col. 3, lines 49-53, "The processor of the gateway executes a software program to perform routing control..."].

Regarding claim 4, Edson further discloses wherein the control circuit selects an appropriate network adapter based on the origination and destination of the data [col. 10, lines 59-65, "packet switch routing"].

Regarding claim 5, Edson further discloses wherein the network adapters comprise any of: HPNA adapter, coaxial network adapter, Ethernet network adapter, wireless network adapter, POTS adapters, and power line network adapters [col. 3, lines 23-25, adapters; col. 7 line 58 through col. 8 line 2, HPNA].

Regarding claim 6, Edson further discloses wherein the data is processed according to a type of adapter [col. 3, lines 23-25, "Adapters or interface cards supporting the physical and software interfaces can provide in-home network access for virtually any type of electronic device."].

Regarding claim 7, Edson further discloses a computing application, the computing application having a user interface for use in configuring the connection and management modules [col. 11, lines 10-19, "The operating system and communication application are designed to automatically detect a new device and interface when connected to the network 11 and to interact with such a new device interface to configure the gateway and the new interface to enable communications through the system 11"].

Regarding claim 8, Edson further discloses wherein the voice data networks comprise the public switched telephone network [col. 2, lines 58-60, PSTN; col. 4, lines 20-35, POTS].

Regarding claim 9, Edson further discloses wherein the non-voice data networks comprise any of the Internet, a LAN, a WAN, and a peer-to-peer network [col. 5, lines 47-50, WAN].

Regarding claim 10, Edson further discloses wherein the management module is capable of processing various data communication protocols comprising any of IP, Ethernet and ATM [col. 10, lines 50-55, Ethernet].

Regarding claim 11, Edson discloses a method for the management of network topology and bandwidth comprising:

determining a source of data for communication to a termination point having a predetermined operational signal frequency [col. 6, lines 10-26, ADSL example];

selecting an appropriate network topology adapter based on the termination point, wherein the network topology adapter comprises any of HPNA adapter, coaxial network adapter, Ethernet network adapter, wireless network adapter, POTS adapters, and power line network adapters [col. 2, lines 48-63, "predetermined frequencies"; col. 4, lines 20-35, "selective connections"]; and

communicating the data to the termination point based on the selected network topology adapter [col. 4, lines 36-65, data communications].

Edson discloses the claimed invention except for selecting a network topology adapter based on the predetermined operational signal frequency. However, Rudish discloses providing a frequency channelizer for directing a signal applied at its input to one of its many output ports, the specific output port being determined by the frequency of the signal applied to the input [see col. 2, lines

62-66]. It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Rudish's teaching into Edson's system for the purpose of allowing multi-frequency signals traveling on the same connection by using a frequency demultiplexer to demultiplex a received multi-frequency signal into separate frequency components and selecting a network topology adapter based on the predetermined operational signal frequency, thereby enabling transmitting a number of separate frequency signals simultaneously over a single channel or line and reducing cost in a home network.

Regarding claim 13, Edson further discloses configuring the adapters, wherein a computing application capable of configuring the adapters is used [col. 11, lines 14-19, configuration routines].

Regarding claim 14, Edson further discloses executing at least one instruction set for use in selecting the appropriate adapter, the instruction set being executed by a control logic circuit [col. 4, lines 11-15; col. 9, lines 15-33].

Regarding claim 15, Edson further discloses frequency and/or time shifting the data before communication to the termination point [col. 13, lines 46-50, "utilizing a multiplexing/splitting technique through the ADSL modem 115". Note that also according to Microsoft Computer Dictionary, Fifth Edition, "To maintain the integrity of each signal on the channel, multiplexing can separate the signals by time, space, or frequency. It is inherent for multiplexing to do frequency, or time, or space shifting.].

Claim 16 is of the same scope as claim 11. It is rejected for the same reason as for claim 11.

Regarding claim 17, Edson further discloses a computing application interface, the computing application interface for use to communicate with at least one computing application for use in configuring the apparatus [col. 11, lines 3-40].

Regarding claim 18, Edson further discloses wherein the computing application comprises a Web browser interface [col. 11, lines 30-37].

Regarding claim 19, Edson further discloses wherein the output module comprises a plurality of output ports for use when routing data [FIG.4 and col. 13, lines 24-63, RJ11 connectors and HPNA interface 63].

Regarding claim 20, Edson further discloses wherein the output ports comprise RJ-11 type ports [FIG. 4].

Regarding claim 21, Edson further discloses wherein the network adapter comprises any of an HPNA adapter, coaxial network adapter, Ethernet network adapter, wireless network adapter, POTS adapters and a power line network adapter, the network adapter being selected based on the operational frequency of the source and destination points [col. 3, lines 23-25, adapters; col. 7 line 58 through col. 8 line 2, HPNA].

Regarding claim 22, Edson discloses a method for managing a network control device, the method comprising:

accessing a graphical user interface having a topology management control and an application services gateway control [col. 7, lines 51-57];

activating the topology management control to execute one or more instructions to configure a network management device [col. 11, lines 10-19, “The operating system and communication application are designed to automatically detect a new device and interface when connected to the network 11 and to interact with such a new device interface to configure the gateway and the new interface to enable communications through the system 11”];

activating the application services gateway control to execute one or more instructions to configure the network management device to operate with services provided by a telephone services provider [col. 12, lines 58-67, IP telephone vendor and high-end telephone service imply configuration];

determining the source of data for communication to a termination point, the termination point having a predetermined operational signal frequency [col. 6, lines 10-26, ADSL example];

sending the digital subscriber line signals to an Ethernet output port; and routing the telephony signals and the digital Subscriber line signals through the configured network management device to network adapters [col. 5 line 45 through col. 6 line 26, external communications].

Edson discloses the claimed invention except for separating telephony signals from digital subscriber line signals using a frequency demultiplexer, separately sending the telephony signals and the digital subscriber line signals to a frequency crossbar, bridging the telephone/DSL signals in the frequency crossbar to corresponding output ports, and routing the telephony signals and the digital Subscriber line signals through the configured network management device to network adapters based on a frequency of a destination line. However, Rudish discloses a multiplexer/demultiplexer for combining/separating a large number of contiguous frequency channels in microwave bands while incurring low insertion loss, and a Butler matrix to combine signal samples selectively at different output ports for different input signal frequencies [see abstract]. Rudish further discloses providing a frequency channelizer for directing a signal applied at its input to one of its many output ports, the specific output port being determined by the frequency of the signal applied to the input [see col. 2, lines 62-66]. It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Rudish's teaching into Edson's system for the purpose of allowing multi-frequency signals traveling on the same connection by using a frequency demultiplexer to demultiplex a received multi-frequency signal into separate frequency components and selecting a network adapter based on a frequency of a destination line, thereby enabling transmitting a number of separate frequency signals simultaneously over a single channel or line and reducing cost in a home network.

Regarding claim 23, Edson further discloses wherein activating the topology management control to execute one or more instructions to configure a network management device comprises selecting configuration information including one or more of network addressing information, encryption information and network/bandwidth topology information [col. 11, lines 41-65, addressing information].

Regarding claim 24, Edson further discloses wherein activating the application services gateway control to execute one or more instructions to configure the network management device comprises selecting services comprising one or more of video on demand, music on demand, remote security applications and video conferencing [col. 15, lines 26-29, "viewing of selected programming on demand"].

Regarding claim 25, Edson further discloses wherein accessing a graphical user interface comprises navigating controls of the network management device using a computer browser application [col. 7, lines 51-57; col. 11, lines 30-37].

Regarding claim 26, Edson further discloses wherein activating the topology management control further comprises manipulating controls for configuring one of a home network and a small office network [col. 11, lines 30-40, "to configure the system 11"].

Regarding claim 27, Edson further discloses wherein routing the telephony signals and the digital subscriber line signals comprises routing network data packets to one or more of an HPNA adapter, a coaxial network adapter, an

Ethernet network adapter, a wireless network adapter, a POTS adapter, and a power line network adapter [col. 3, lines 23-25, adapters; col. 7 line 58 through col. 8 line 2, HPNA].

Claim 28 is of the same scope as claim 22. It is rejected for the same reason as for claim 22.

Regarding claim 29, Edson further discloses wherein activating the topology management control to execute one or more instructions to configure a network management device comprises selecting configuration information including one or more of network addressing information, encryption information and network/bandwidth topology information [col. 11, lines 41-65, addressing information].

Regarding claim 30, Edson further discloses wherein activating the application services gateway control to execute one or more instructions to configure the network management device comprises selecting services comprising one or more of video on demand, music on demand, remote security applications and video conferencing [col. 15, lines 26-29, "viewing of selected programming on demand"].

Regarding claim 31, Edson further discloses wherein accessing a graphical user interface comprises navigating controls of the network management device using a computer browser application [col. 7, lines 51-57; col. 11, lines 30-37].

Regarding claim 32, Edson further discloses wherein activating the topology management control further comprises manipulating controls for configuring one

of a home network and a small office network [col. 11, lines 30-40, "to configure the system 11"].

Regarding claim 33, Edson further discloses wherein routing one or more of voice information and non-voice information through the configured network management device to network adapters comprises routing network data packets to one or more of an HPNA adapter, a coaxial network adapter, an Ethernet network adapter, a wireless network adapter, a POTS adapter, and a power line network adapter [col. 3, lines 23-25, adapters; col. 7 line 58 through col. 8 line 2, HPNA].

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objection made. Applicant must show how the amendments avoid such references and objections. See 37 CFR 1.111(c).
9. Meenan et al., US Patent Number 7,315,886 B1, has taught a home-networking gateway providing a service to a device on a home network by transparently accessing a capability of a different device on the home network.
10. Humpleman et al., US Patent Number 7,039,858 B2, has taught a home entertainment system having a number of devices connected by a serial bus.

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL C. LAI whose telephone number is (571)270-3236. The examiner can normally be reached on M-F 8:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service

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Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael C. Lai
08MAR2010

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